

Tanveer Hussain

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OBJECTIVE

Agentic AI developer with strong expertise in LangGraph, LangChain, and vector databases, complemented by full-stack development skills in React and Django. Demonstrated leadership through 3 national hackathon wins and experience building real-time, multilingual AI systems that solve complex real-world challenges.

SKILLS

Agent Development

LangGraph, MCP, LangChain, Vector Database

AI / ML Development

NumPy, Pandas, TensorFlow, Scikit-learn

Full Stack Development

Django, React, PostgreSQL, RESTful Services

Soft Skills

Leadership, Team Collaboration, Public Speaking

INTERNSHIP EXPERIENCE

Full Stack Developer Intern

Marketo

May 2025 – Present

Lawrence, Kansas, United States - Remote

- Engineered AI pipelines for image generation and editing using generative models.
- Implemented object removal with LaMa inpainting and segmentation using Segment Anything 2 (SAM2).
- Designed a scalable AWS S3 data pipeline to manage large-scale image datasets.

AI/ML Intern

Infosys Springboard

Dec 2024 – Feb 2025 | Remote

- Collaborated on a Smart Traffic Management System using YOLOv8, OpenCV, and Flask.
- Built APIs to process real-time video streams for helmet detection, ANPR, OCR, and traffic violation monitoring.
- Followed agile workflows and maintained production-quality code with clear documentation.

PROJECTS

Vaanify :- Phone Call AI Agent – Real-Time Multilingual Conversational System

- Engineered a phone-call-ready AI agent framework integrating LangChain agents with Twilio WebSocket, enabling real-time, two-way audio conversations in English and Hindi using Azure STT and ElevenLabs TTS.
- Designed a modular multi-threaded architecture to manage streaming audio, LLM interaction, and TTS synthesis, with synchronized queues for low-latency communication across input/output threads.
- Achieved <250ms input-to-interruption delay via Silero-VAD, broadcasting stop signals across threads to ensure natural, human-like call flow and rapid context switching.

Hospital Workflow Automation - Agentic Ai

- Conceptualized and built a Doctor Assistance Multi-Agent system using LangGraph and MCP to retrieve EMRs and manage appointments, providing citation-backed responses from WHO and case studies using Tavily Search API and Playwright.
- Designed a Patient Agent with multi-agent architecture to handle complex healthcare and appointment queries in Hindi and English, offering hallucination-free, simple explanation and full booking management.
- Built a responsive frontend using React and connected the event-driven AI pipeline through FastAPI endpoints, making LangGraph agents accessible via RESTful APIs.

Smart Traffic Management System

- Developed a Smart Traffic Management System using ANPR and ATCC for real-time vehicle detection, classification, and dynamic traffic control using YOLO, OpenCV, and Flask.
- Increased processing FPS by 40%, enhanced the UI with GSAP-based animations, and fixed stream termination issues for smoother user interaction and performance.
- Implemented PyTesseract-based OCR, MySQL data storage, and detection modules for helmet, triple-riding, signal jumping, and heatmap-based traffic visualization

AWARDS

3rd Prize – Kriyeta 4.0 Agentic AI 48 Hours National Level Hackathon

Acropolis Institute of Technology and Research - AITR, Indore

20 Apr 2025

2nd Prize – CodeStorm Spandan2k25 National Level Hackathon

Mandsaur University

21 Mar 2025

EDUCATION

B.Tech Computer Science And Engineering

Mandsaur University, Mandsaur, Madhya Pradesh, India

Jul 2022 – Jun 2026